subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention." Applicant respectfully disagrees.

It is well established that patent specifications were not intended to be blueprints or production documents which provide every detail for the practice of the invention. This is so because the specification speaks to one skilled in the art. DeGeorge V. Bernier, 226 U.S.P.Q. 258,262 (Fed. Cir. 1985). However the Examiner is asserting that "Applicants are claiming a method for producing a gas turbine fuel oil having specific characteristics including a viscosity within a set range, metal concentrations within set ranges, and sulfur amounts within a set range" and that "[t]his fuel oil is also produced in yields within a claimed range." The Office Action maintains that "the final product depends on a number of factors including the composition of the feed oil, conditions used in the distillation, separating, and hydrotreating steps, and the composition of the catalyst used in the hydrotreating steps" and that "[a]dditionally, the predictability of catalytic processes is low." The Examiner holds that "[s]ince the claims do not include any specific conditions required to produce the product and the specification does not disclose a combination of feed types, conditions, and catalysts that can be used to produce the claimed product, one of ordinary skill would have to perform a level of experimentation that is undue in order perform the claimed invention to produce the claimed product."

The test of enablement is whether one skilled in the art could make or use the claimed invention from the disclosures in the specification coupled with information known in the art without undue experimentation. *United States V. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPO2d 1217, 1223 (Fed. Cir. 1988), *cert. denied*, 490 U.S. 1046 (1989); *In re Stephens*, 529

F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976). Determining enablement is a question of law based on underlying factual findings. In re Vaeck, 947 F.2d 488, 495, 20 USPQ2d 1438, 1444 (Fed. Cir. 1991); Atlas Powder Co. v. E.I. Du Pont De Nemours & Co., 750 F.2d 1569, 1573, 224 USPQ 409, 411 (Fed. Cir. 1984). In determining whether a disclosure would require undue experimentation to make the claimed subject matter, the Examiner must consider the quantity of experimentation necessary, the amount of direction or guidance presented, the presence or absence of working examples, the nature of the invention, the state of the prior art, the relative skill of those in the art, the predictability or unpredictability of the art, and the breadth of the claims. In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404, (Fed. Cir. 1988), citing with approval Ex parte Forman, 230 USPQ 526, 547 (Bd. Pat. App. & Int. 1986). The burden is on the Examiner to establish a reasonable basis to question the adequacy of Applicant's disclosure. In re Marzocchi, 439 F.2d 220, 223-224, 169 USPQ 367, 370 (CCPA 1971).

The present invention is disclosed in sufficient detail to enable a person skilled in the art to make and use the invention. By way of example, the Applicant discloses the source of the feed oil as being crude oil (Fig. 1; and specification at page 10). More specifically, Applicant provides as examples Arabian light crude oil and Middle East Crude oil (specification at pages 25 and 27).

The specification sets forth the distilling conditions. For example, in the first atmospheric distillation, the crude oil is separated into light and heavy fractions having boiling point ranges of from below 340-370° C and above 340-370° C, respectively. Atmospheric distillation is well known in the art, but in the present invention, as opposed to the conventional atmospheric distillation process, multiple fractions are not separated, i.e., the oil is not separated

into many multiple components such as gasoline, kerosene, gas oil etc. The crude is only separated into two bulk fractions, light and heavy, at one temperature range (specification at pages 10-12).

The light fraction is fed into a hydrotreating unit. Hydrotreating units are known in the art, and include conventional catalysts such as sulfides of Ni, Mo or Co on an alumina substrate (specification at page 15, lines 28-29). Applicant has also disclosed that the preferred treatment temperature and hydrogen gas pressure in the hydrotreating unit as being 330-380° C and a range of 20-80kg/cm², respectively (specification at page 15, lines 23-26). The Applicant provides an example that the hydrogen pressure for treating the light fraction from Arabian crude within the range from 30-50 kg/cm² (specification at page 15, lines 29-34). The example also provides an indication of the sulfur and nitrogen content in ppm of the treated light fraction.

As for further atmospheric distillation hydrotreating steps, Applicant has provided details regarding the temperature ranges for separating the hydrotreated light fraction further into light and heavy fractions. See specification at page 16, lines 3-24 and page 19, lines 26-34. In addition to the above, the specification includes two examples at pages 25 and 27 of the specification which provide sufficient guidance for a person having ordinary skill in the art to make and use the claimed invention.

The Office Action states that the "claims do not include any specific conditions required to produce the product and the specification does not disclose a combination of feed types, conditions, and catalysts that can be used to produce the claimed product, one of ordinary skill would have to perform a level of experimentation that is undue in order perform the claimed invention to produce the claimed product." As set forth above, the specification provides

sufficient direction and guidance for a person having ordinary skill in the art to practice the

invention. It discloses feed types, conditions and specific catalysts. The Office Action has not

established that undue experimentation would be required to practice the claimed invention. The

Examiner has not presented any cogent reasoning to show that, in light of the nature of the

invention and the state of the art, undue experimentation would be required to practice the

invention. The specification includes working examples to illustrate the invention which a

person having ordinary skill in the art would understand and from which such a person would be

able to practice the invention. The scope of the claims is within the scope of the disclosed

invention. The Examiner has not made any showing that the claimed invention cannot be

practiced based on unpredictability of the art.

For all of the foregoing reasons, the claimed subject matter in claims 1-17 and 20 meets

the requirements of 35 U.S.C. 112, first paragraph, and that the claims are based on an enabling

disclosure. Accordingly, favorable reconsideration of the claims is requested in light of the

preceding remarks. Allowance of the claims is courteously solicited.

If there are any outstanding issues that might be resolved by an interview or an

Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone

number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is

hereby made. Please charge any shortage in fees due under 37 C.F.R. § 1.17 and due in

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connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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